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AGRICULTURAL MEMORANDUM NO 382

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# Gramineae Pollen in London

## 4. Effect of rain the previous night

The analysis of Ag Mem 381 was repeated for night rainfalls (1800-0600) of 5 mm and above, recorded at Kew, with the following results:

Phase I

| | Zero | Low |
|---|---|---|
| Actual | 8 | 6 |
| Expected | 9.3 | 4.7 |

The effect is the reverse of what might be expected, but in any case the figures are not 'significant'.

Phase 2

| | Low | Moderate | High | Extreme |
|---|---|---|---|---|
| Actual | 6 | 5 | 0 | 0 |
| Expected | 3.2 | 4.7 | 2.3 | 0.8 |

A slight 'depression' effect might be deduced from this, transformed to 2 x 2 tables:

| | Low | Moderate & above | or | Low/Moderate | High/Extreme |
|---|---|---|---|---|---|
| After night rain | 6 | 5 | | 11 | 0 |
| Others | 66 | 168 | | 165 | 69 |
| Chi-square | 3.47 | | | 4.55 | |
| Significance | P = 0.07 | | | P = 0.03 | |

the second of which might be regarded as significant.

Amount of rainfall appears to play a limited role. Taking the 13 occasions when the rainfall totals of the preceding day plus the preceding night exceeded 10 mm we find

| | Low | Moderate | High | Extreme |
|---|---|---|---|---|
| Actual | 5 | 6 | 2 | 0 |
| Expected | 3.8 | 5.5 | 2.8 | 0.9 |

which is clearly not 'significant'.

Any comments or suggestions on this paper should be referred to the author.

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